

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

[0009] A problem not anticipated in the method and device described in Nelson is that the semiconductor detector is typically mechanically damaged in a zone close to the edge when it is cut. The cutting is usually performed with a diamond saw or a laser. In this area, a large amount of background current is generated. The active sensors in the semiconductor wafer have to be placed some distance from the edge in order not to be saturated by this background current, which mask the signal from the X-rays. ~~Usually, but not always,~~ As a solution, the present invention includes one or several guard-rings that are placed between at least one of the active sensors and at least one of the edges in order to sink the current generated at the edge of the detector, thereby preventing it from reaching the active sensors. The distance between the edge and the active sensors are from 0.1 mm to 0.6 mm. X-rays stopping in this region will not be detected. This so-called dead area is equivalent to an inefficiency in the order of 20% in diagnostic X-ray imaging, such as mammography.